

THOMAS BOREMAN'S NATURAL HISTORY OF
1744, AND HIS ENTOMOLOGICAL EXPLA-
NATION OF THE IGNIS FATUUS

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Reference has been made previously in this JOURNAL to the entomology of Boreman's natural histories.¹ Some months ago, through the kindness of Albert E. Lownes, of Providence, Rhode Island, I was permitted to examine his copy of Boreman's 1744 natural history entitled "A Description Of a great Variety of Animals and Vegetables; Viz. Beasts, Birds, Fishes, Insects, Plants, Fruits and Flowers. Extracted from the most considerable Writers of Natural History; And Adapted to the Use of all Capacities, but more particularly for the Entertainment of Youth. Being a Supplement to A Description of Three Hundred Animals. Illustrated with above Ninety Copper Plates, whereon is curiously Engraven every Animal and Vegetable described in the whole Book. The Second Edition. London: Printed for R. Ware, at the Bible and Sun in Amen-Corner, Warwick-Lane. MDCCXLIV. Where may be had, 1. A Description of Three Hundred Animals, price 2s. 6d. 2. A Description of some curious and uncommon Creatures, price 2s." $6\frac{1}{2} \times 3\frac{3}{4}$ inches. [VI] + 140 p. Engraved frontispiece.

This book, which is one of the three popular natural histories compiled by Boreman, carries full page, unnumbered plates inserted in appropriate places in the text. Of the "information" in the volume a statement "To the Reader" includes the following: "And sure I am, such studies as these are vastly superior to the Tales, Fables, and Stories of Love, used in Schools, and deserve the regard of Parents and Teachers; as conducing more to the Honour of God, and the real Benefit of Youth."

The subject matter consists of short and long textual accounts of various animals and plants with accompanying, crudely drawn, grotesque looking illustrations. "Book the Fourth", pages

¹ Jour. N. Y. Ent. Soc., 47 (3): 213-217; (4): 351-352. 1939.

51-84, "Of Insects", includes descriptive accounts of the silkworm, butterfly, weevil, long-horned beetle, a sphinx moth, praying mantis, leaf insect, roaches, various spiders including the tarantula, ants, blue-bottle fly, silver-fish, book-mite, and corn-weevil. These popular descriptions were valueless for identification purposes and do not even seem quaint or entertaining at this time. However popular entomology was like that when the book was written, as may be noted from the following quotations.

"Fig. 3. Is an Indian Insect of the Chafer Kind; very common to be met with upon the Pomegranate Tree; of a heavy and sluggish nature; and therefore easily catch'd. It is furnish'd with a long tube or trunk, under its nose; which it very dextrously fixeth in the sweet Flowers to suck the Honey out, thro' the same." The figures accompanying this mystifying description are those of an adult cicada and its pupa.

Of the "Blue Fly", it is stated, "This kind of Fly is a very beautiful Creature, and has many things about it very notable. The Head, Eyes, Wings, and Feet, are full of Ornaments and Contrivances; and afford no less pleasing an Object to the Mind to speculate upon, than to the Eyes to behold; there is a most admirable and curious Mechanism in the Foot of this little Animal; whereby the Flies are inabled to walk against the sides of Glass, perpendicularly upwards." Boreman drew freely from various authors including Hooke and Maria Sibylla Merian.

Page 111 of Boreman's book is a second title page dated 1736, as follows: "Natural and Philosophical Conjectures on the Ignis Fatuus, or Jack in the Lanthorn: Endeavoring to prove, that The Light so called proceeds from Some Flying Insect; And not from a Fired Vapour, as generally believ'd. With A Description and Curious Figure of the Indian Lanthorn Fly, a Nocturnal Insect, which carries a Light in dark Nights, equal to that of our Will with a Whisp." London: Printed for T. Boreman, near Child's Coffee-House in St. Paul's Church-Yard. MDCCXXXVI.

Following this second title page is a lengthy discussion (p. 113-137) attempting to prove that the light called by that name proceeds from some nocturnal flying insect. In support of this idea, the compiler quotes Madam Merian's account of the Indian Lanthorne Fly published in her "Insects of Surinam". He also

mentions Fr. Willughby and Mr. Ray, as recording in the "Philosophical Transactions" (London) their belief that some night-flying insect, or the shining of many male glow worms (in England) was responsible for the light, although Sir Thomas Derham held a contrary opinion, as a result of his observations in Italy. The "late" R. Bradley, F. R. S., also supposed the Ignis fatuus "to be no more than a group of small enlightened insects rather than an inflammable vapor". Fire flies too were considered as responsible. After reviewing the evidence on both sides, the author concludes: "But whether the Ignis Fatuus be of the Papilionaceous, Libella, Beetle-kind, or other, it must remain a Doubt, till time discovers it: And all that is attained in this Attempt, is only to show the probability of its being a living Animal, rather than a Vapour."

Apparently time has not yet discovered the cause of this rare phenomenon, the Will-o'-the-Wisp, that appears as a pale, bluish, steady or intermittent flame over marshes and stagnant bodies of water. According to Dr. E. Newton Harvey in his "Living Light," Princeton, 1940, the flame has been attributed to burning phosphine, a gas which although self-inflammable, is not a decomposition product of organic matter, and to methane, a decomposition product that is not self-inflammable. Dr. Harvey suggests the possibility of electrical origin, or large clusters of luminous fungi or swarms of luminous gnats, or "perhaps a wisp of fog hanging over a swamp and seen in moonlight or starlight."